

## Product datasheet for **AP20307PU-N**

### IKK alpha (CHUK) Rabbit Polyclonal Antibody

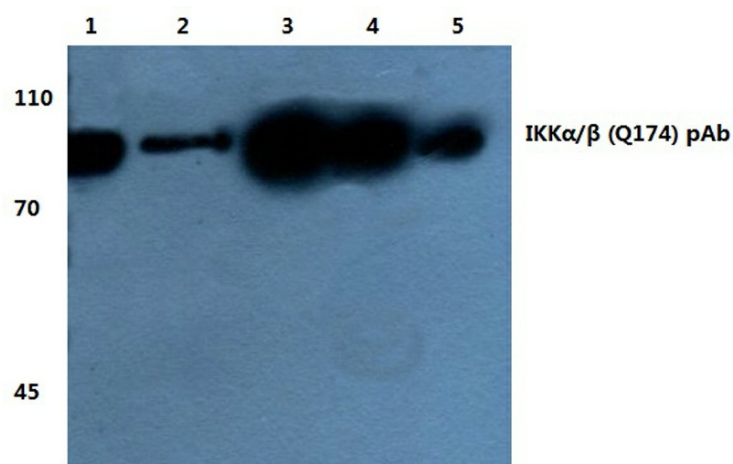
#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	<b>Western blot:</b> 1/500-1/1000. <b>Immunohistochemistry on paraffin sections</b> 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of IKK $\alpha$ / $\beta$ protein.
Formulation:	Phosphate buffered saline (PBS) with 0.05% sodium azide, approx. pH 7.2 State: Aff - Purified State: Liquid purified Ig fraction
Concentration:	1.0 mg/ml
Purification:	Affinity-chromatography using epitope-specific immunogen; purity is > 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 85 kDa
Gene Name:	conserved helix-loop-helix ubiquitous kinase
Database Link:	<a href="#">Entrez Gene 12675 Mouse</a> <a href="#">Entrez Gene 309361 Rat</a> <a href="#">Entrez Gene 1147 Human</a> <a href="#">O15111</a>

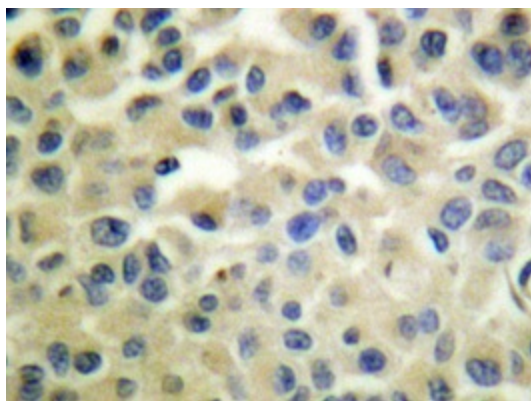


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- Background:** The transcription factor NF $\kappa$ B is retained in the cytoplasm in an inactive form by the inhibitory protein I $\kappa$ B. Activation of NF $\kappa$ B requires that I $\kappa$ B be phosphorylated on specific serine residues, which results in targeted degradation of I $\kappa$ B. I $\kappa$ B kinase  $\alpha$  (IKK $\alpha$ ), previously designated CHUK, interacts with I $\kappa$ B $\alpha$  and specifically phosphorylates I $\kappa$ B $\alpha$  on Serine 32 and 36, the sites that trigger its degradation. IKK $\alpha$  appears to be critical for NF $\kappa$ B activation in response to proinflammatory cytokines. Phosphorylation of I $\kappa$ B by IKK $\alpha$  is stimulated by the NF $\kappa$ B inducing kinase (NIK), which itself is a central regulator for NF $\kappa$ B activation in response to TNF and IL-1. The functional IKK complex contains three subunits, IKK $\alpha$ , IKK $\beta$  and IKK $\gamma$  (also designated NEMO), and each appear to make essential contributions to I $\kappa$ B phosphorylation.
- Synonyms:** CHUK, TCF16, I kappa-B kinase alpha, I $\kappa$ BKA, IKK-alpha, IKK-A, I kappaB kinase, I-kappa-B kinase 1, NFKBIKA, IKK1
- Protein Families:** Druggable Genome, Protein Kinase
- Protein Pathways:** Acute myeloid leukemia, Adipocytokine signaling pathway, Apoptosis, B cell receptor signaling pathway, Chemokine signaling pathway, Chronic myeloid leukemia, Cytosolic DNA-sensing pathway, Epithelial cell signaling in Helicobacter pylori infection, MAPK signaling pathway, NOD-like receptor signaling pathway, Pancreatic cancer, Pathways in cancer, Prostate cancer, RIG-I-like receptor signaling pathway, Small cell lung cancer, T cell receptor signaling pathway, Toll-like receptor signaling pathway

**Product images:**

Western blot (WB) analysis of IKK $\alpha$ / $\beta$  antibody (Cat.-No.: AP20307PU-N) at 1/500 dilution Lane 1:THP-1 whole cell lysateLane 2:HEK293T whole cell lysateLane 3:Mouse brain tissue lysateLane 4:Rat heart tissue lysateLane 5:NIH-3T3 whole cell lysate



Immunohistochemistry analyzes of IKK $\alpha$ / $\beta$  antibody (AP20307PU-N) in paraffin-embedded human breast carcinoma tissue.